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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/526,097

09/07/2005

Thomas Mueller

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EXAMINER

HE, AMY

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2858

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/526,097	Applicant(s) MUELLER, THOMAS	
	Examiner AMY HE	Art Unit 2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 October 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/26/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1-3 and 5-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As for claim 1, it is not clear how the recitation "wherein the measured values define a sensitivity curve; and wherein a smallest interval between two of the different wavelengths on the sensitivity curve is smaller than an interval between a local sensitivity maximum and a local sensitivity minimum on the sensitivity curve" limit the method steps as claimed in claim 1. First, it is not apparent whether or not the limitation is a method step performed (i.e. is applicant trying to claim a method step of obtaining a sensitivity curve?). Second, if the interval between two different wavelengths is the **smallest interval** as claimed, then it will always be smaller than other intervals, such as the claimed interval between a local sensitivity maximum and a local sensitivity minimum. In addition, it is not clear what is a "**local** sensitivity maximum" and a "**local** sensitivity minimum" (i.e. what is considered as a local range?).

Claims 2-3 and 6-7 are rejected to because of their dependency upon claim 1.

Claim 5 is rejected to because it depends from itself.

As for claim 8, it is not clear what **structure** of the claimed apparatus is limited by the recitation "wherein a smallest interval between two measured wavelengths of the

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wavelength-dependent output signal is smaller than an interval between a local sensitivity maximum and a local sensitivity minimum on a sensitivity curve defined, in part, by the two measured wavelengths". First, it is not clear what are the claimed "two **measured** wavelengths of the wavelength-dependent output signal" (i.e., the two wavelengths are two different wavelength of light **applied** to the integrated circuit, they are not two measured values). Moreover, if the interval between the two measured wavelengths is the smallest as claimed, then it will always be smaller than other intervals, such as the claimed interval between a local sensitivity maximum and a local sensitivity minimum. In addition, it is not clear what is the claimed "**local** sensitivity maximum" and "**local** sensitivity minimum" (i.e. what is considered a local range?).

Claim 9 and 14-16 are rejected to because their dependency upon claim 8.

As for claim 10, it is not clear how the recitation " wherein a smallest interval between two measured wavelengths of the output signal is smaller than an interval between a local sensitivity maximum and a local sensitivity minimum on the sensitivity curve defined, in part, by the two measured wavelengths" limit the method steps as claimed in claim 10. First, it is not clear what are the claimed "two **measured** wavelengths of the output signal" (i.e., the two wavelengths are two different wavelength of light **applied** to the integrated circuit, they are not two measured values). Moreover, if the interval between the two measured wavelengths is the smallest as claimed, then it will always be smaller than other intervals, such as the claimed interval between a local sensitivity maximum and a local sensitivity minimum. In addition, it is not clear what is

the claimed "**local** sensitivity maximum" and "**local** sensitivity minimum" (i.e. what is considered a local range?).

Claims 11-13 are rejected to because their dependency upon claim 10.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 6, 8, 10, 12-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Kish et al. (US 7,043,109 B2).

Re claims 1, 10, 12, 13 Kish et al. disclosed method (Fig. 17,23) for use with an integrated circuit (PIC) that is light-sensitive, the method comprising: applying different wavelengths (Fig. 33,34) of light 132 from external light source (laser)(column 21 line 62,63) to the integrated circuit, the integrated circuit producing output signals in response to the different wavelengths of light, measuring the output (column 21 line 63) signals to obtain measured values; comparing the measured values to setpoint values 140 (desired output) that correspond to the different wavelengths of light obtaining correction values (calibrate data) for the different wavelengths of light, the correction values being based on comparison 140 of the measured values to the setpoint values

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140 (desired output) and storing (144,232) (Fig. 17,23) the correction values on the integrated circuit (column 34 lines 6-10); wherein the integrated circuit (PIC) has a sensitivity that is wavelengths-dependent (i.e. the integrated circuit is sensitive to different wavelengths of laser).

Re claims 2 and 14, Kish et al. disclosed semiconductor substrate 32 and testing is performed using testing card 200 (probe card) (Fig. 22).

Re claims 3, 6 and 15, Kish et al. disclosed different wavelengths of light (optical spectrum) are applied via light-emitting diodes (LD DRIVER) and integrated circuit comprises one or more photodiodes PD (Fig. 37).

Re claim 8, Kish et al. disclosed semiconductor chip comprising light sensitive integrated circuit (PIC) (column 6 lines 20-26) that stores information for use in correcting wavelength- dependent output signal of the light sensitive integrated circuit (PIC) (column 6 line 64 to column 7 line 2); wherein the light-sensitive integrated circuit (PIC) has a wavelength-dependent sensitivity (i.e. the PIC is sensitive to the different wavelengths applied).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kish et al. (US 7,043,109 B2) in view of De Vries et al. (US 5,736,848).

Re claims 7 and 16, Kish disclosed all of the claimed limitations as set forth above except wherein correction values are stored using zener diodes.

De Vries et al. disclosed measurement and calibration system wherein memory 11 is provided with zener diode for storing a digital calibration value.

At the time the invention was made it would have been obvious for one of ordinary skill in the art to modify Kish et al. by providing memory with zener diode disclosed by De Vries et al. for storing a digital calibration value.

4. Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kish et al. (US 7,043,109 B2) in view of Matsuyama (US 6,876,187 B2).

Re claims 9 and 11, Kish et al. disclosed all of the claimed limitations as set forth above except temperature sensor for measuring temperature of light source and correction data derived from the temperature.

Matsuyama disclosed applying light with different wavelength to a cell and photoelectric conversion characteristic of the sample cell is corrected (temperature correction) based on the measured temperature (column 6 lines 4-16).

At the time the invention was made it would have been obvious for one of ordinary skill in the art to modify Kish et al. by adding a temperature sensor for measuring the temperature of light source since Matsuyama disclosed temperature correction of measured data.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMY HE whose telephone number is (571)272-2230. The examiner can normally be reached on 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on 571-272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner: /Amy He/
Phone: (571) 272-2230
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January 28, 2008.